ABSTRACT OF THE DISCLOSURE

A thermal cycling device for performing nucleic acid amplification on a plurality of biological samples positioned in a sample well tray. The thermal cycling device includes a sample block assembly, an optical detection system, and a sample well tray holder configured to hold the sample well tray. The sample block assembly is adapted for movement between a first position permitting the translation of the sample well tray into alignment with sample block assembly, and a second position, upward relative to the first position, where the sample block assembly contacts the sample well tray. A method of performing nucleic acid amplification on a plurality of biological samples positioned in a sample well tray in a thermal cycling device is also provided.